

Amended set of claims

This listing of claims will replace all prior versions and listings of claims in the application

1. (previously presented): A method for electronically displaying a target image with an animated microstructure, where the target image is made of a succession of target image instances which differ from each other by an embedded microstructure which evolves over time, the method comprising the steps of

(a) defining a two-dimensional original image;

(b) defining a time-dependent geometric animation transformation between an original microstructure space and a transformed microstructure space, said transformation specifying how said embedded microstructure spatially evolves in successively displayed target image instances;

and

(c) rendering from said two-dimensional original image said succession of target image instances comprising said embedded microstructure evolving over time,

where said rendering step comprises a mapping of positions between target image instances and positions within said original microstructure space according to said time-dependent geometric animation transformation and a halftoning of said two-dimensional original image;

where the microstructure represents at least one visual motive element selected from the set of text, logo, symbol and ornament;

where visual motive elements represented by said microstructure are independent of the original image content;

where the target image instances represent simultaneously at a global image level the original two-dimensional image and at the microstructure level the independent visual motive elements represented by said microstructure.

2. (canceled)

3. (previously presented): The method of claim 1, where only a part of the original image is rendered with an animated microstructure, that part being specified by an additional mask definition step.

4. (previously presented): The method of claim 1, where an additional step enables to specify a set of basic colors for rendering said target image instances.

5. (previously presented): The method of claim 4, where said said two-dimensional original image is halftoned by dithering at least one of the basic colors with a dither matrix embedding the microstructure.

6. (canceled).

7. (previously presented): The method of claim 4, where halftoning is carried out by multicolor dithering with the defined set of basic colors and with a dither matrix embedding the microstructure.

8. (canceled).

9. (canceled).

10. (previously presented): The method of claim 1, where the evolution of said embedded microstructure over time comprises a blending between two microstructure shapes.

11. (canceled)

12. (canceled)

13. (currently amended): The method of claim 1, where the embedded microstructure is made more flexible by an additional warping transformation mapping between a target image space containing the target image and the an animated dither matrix space.

14. (canceled)

15. (canceled)

16. (canceled)

17. (canceled)

18. (canceled)

19. (canceled)

20. (canceled)

21. (canceled)

22. (canceled).

23. (canceled)

24. (currently amended): A target image displayed on a computer screen by a computing system comprising a succession of target image instances which differ from each other by an embedded microstructure which evolves over time, said computing system running a microstructure image rendering software, said software rendering from an original two-dimensional image said succession of target image instances comprising said embedded microstructure evolving over time, where said rendering comprises a mapping of positions between target image instances and positions within said original microstructure space according to a time-dependent geometric animation transformation and

comprises a halftoning of said two-dimensional original image;
where the microstructure represents at least one visual motive element selected from the set of text,
logo, symbol and ornament;

where visual motive elements represented by said microstructure are independent of the original
image content;

where the target image instances represent simultaneously at a global image level the original two-
dimensional image and at the microstructure level the independent visual motive elements
represented by said microstructure.

~~where from far away mainly a global image is visible and from nearby mainly the evolving~~
~~microstructure is visible, where a time dependent animation transformation specifies how said~~
~~embedded microstructure spatially evolves over the succession of displayed target image instances,~~
~~where the microstructure represents at least one visual motive element selected from the set of text,~~
~~logo, symbol and ornament, where visual motive elements represented by said microstructure are~~
~~independent of the global image content and where rendering the target image instances from an~~
~~original image comprises a halftoning operation.~~

25. (previously presented): The image of claim 24, where the visibility of the embedded microstructure is tuned by a mask whose values represent relative weights of said original image without embedded microstructure and a corresponding image rendered with the embedded microstructure.

26. (original): The image of claim 25, where the mask values evolving over time yield apparent changes in at least one of the embedded microstructure appearance properties selected from the set of visibility, position and spatial extension properties.

27. (previously presented): The image of claim 25, where contributions of said original image and said image rendered with the embedded microstructure are spatially distributed.

28. (previously presented): The image of claim 24, where the halftoning operation is performed by a dithering method taking as input said original image and producing a dithered image, said dithering method being selected from the set of standard dithering and multicolor dithering methods.

Claims 29-33 (canceled).

34. (currently amended)

A computing system operable for electronically displaying a target image with an embedded microstructure evolving over time, said computing system comprising a server computing system operable for rendering said target image from an original image by synthesizing target image instances and comprising a client computing system capable of receiving the sequence of image instances from the server computing system and capable of displaying said sequence, where a time-dependent animation transformation specifies how said embedded microstructure spatially evolves over the succession of displayed target image instances, where said embedded microstructure represents at least one visual motive element selected from the set of text, logo, symbol and ornament, where visual

motive elements represented by said embedded microstructure are independent of the original image content and where synthesizing the target image instances from said original image comprises a halftoning operation.

35. (original): The computing system of claim 34, where the server computing system is a Web server and where the sequence of image instances is displayed by the client computing system within a Web page.

36. (currently amended): A computing system ~~capable of~~ displaying a target image with an embedded microstructure spatially evolving over time, said computing system comprising a server computing system and a client computing and display system, where the client computing and display system receives from the server computing system as input data an original color image, microstructure data and microstructure evolution parameters and where the client computing and display system renders said target image from said original color image by synthesizing target image instances with said embedded microstructure on the fly, where said embedded microstructure represents at least one visual motive element selected from the set of text, logo, symbol and ornament, where the microstructure evolution parameters comprise a time-dependent animation transformation specifying how said embedded microstructure spatially evolves over the succession of displayed target image instances, where visual motive elements represented by said embedded microstructure are independent of the original color image content, and where rendering the target image instances from said original image comprises a halftoning operation. ~~and where from far away mainly a global image representing said rendered original color image is visible and from nearby mainly the evolving embedded microstructure is visible.~~

37. (currently amended): The computing system of claim 36, where the ~~transmitted~~ microstructure data received by the client computing and display system comprises a dither matrix, and where the target image is a dithered image generated by a method selected from the set of standard dithering and multicolor dithering methods.

38. (currently amended): The computing system of claim 36, where the microstructure evolution parameters also comprise a warping transformation and where the client computing and display system also receives from the server computing system as input data a mask whose values represent relative weights of the original color image and of image instances obtained by said halftoning operation, ~~the dithered image~~, the mask defining the position and visibility of the microstructure within the target image.

Claims 39-45 (canceled).